

**LISTING OF CLAIMS**

1. (Currently Amended) A composition comprising:  
a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of antibodies, and a pharmaceutically-acceptable carrier, ~~such that the expressed antigen elicits production of antibodies in a circulatory system of the subject, wherein the antibodies pass across a blood-brain barrier into a central nervous system upon injury or disease.~~
2. (Currently Amended) The composition of claim 1, wherein the produced antibodies bind to, ~~and modify a function of~~ an NMDA receptor in the central nervous system.
3. (Canceled)
4. (Previously presented) The composition of claim 1, wherein the antigen is NMDAR1.
- 5-6. (Canceled).
7. (Previously presented) The composition of claim 1, wherein the vector is a viral vector.
8. (Previously presented) The composition of claim 7, wherein the viral vector is selected from the group consisting of an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.
9. (Previously presented) The composition of claim 8, wherein the viral vector is an adeno-associated virus vector.
10. (Previously presented) The composition of claim 1, wherein the composition is a preparation for oral administration.

11. (Currently Amended) A method ~~for modulating or delaying onset of epilepsy, stroke, or decreased cognition, wherein said method comprises~~ comprising the step of administering the composition of claim 1 a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of antibodies, and a pharmaceutically-acceptable carrier to a subject, whereby the produced antibodies are capable of passing across a blood-brain barrier into a central nervous system following a neuronal insult.

12. (Currently Amended) A method ~~for ameliorating or delaying onset of epilepsy, stroke, or decreased cognition in a subject~~ comprising:  
administering a composition to a subject comprising a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen, and a pharmaceutically-acceptable carrier, wherein the antigen elicits the production of antibodies in a circulatory system of the subject which ~~modify the function of~~ bind to an NMDA receptor in the central nervous system to ameliorate or delay onset of epilepsy or stroke in the subject.

13. (Canceled)

14. (Original) The method of claim 12, wherein the antigen is NMDAR1.

15. (Canceled)

16.-19. (Canceled)